

Appl. No. 09/901,894
Amdt. dated May 11, 2004
Reply to Office Action of November 12, 2003

REMARKS/ARGUMENTS

In view of the foregoing amendments and these remarks, it is submitted that the objections raised in the office action have been overcome.

Amendments to the Claims

Applicant has provided a number of clarifying amendments to the claims with respect to the structural relationship of the data collection and control device and its relationship with oil/gas well production and pumping equipment.

In particular, claim 1 has been amended to include the limitation of claim 5 to specifically require the remote device to be able to store production data.

Claim 2 has been amended to clarify that the data acquisition system includes a central computer.

Claim 15 has been amended to require that the remote device can store production data.

Method claim 16 has been amended to include a step of storing data at a remote location.

New claim 19 has been added to the application and claims 5 and 11 have been cancelled.

Accordingly, claims 1-4, 6-10 and 11-19 are pending herein.

Summary of Examiner's Objections

In the Office Action of November 12, 2003, the Examiner has rejected amended claims 1-17 and claim 18 as being obvious in view of Kent (USP 6, 163,761) and Ayler (USP 4,458,945). In particular, and with respect to amended claim 1, the Examiner states:

"Regarding claim 1, Kent teaches data collection processor 38 which read on a data collection device operatively connected to electronic sensors 28, 30 for obtaining production data (eg. column 4, lines 57-64) and for reporting the production data back to a computer 12 via a wired or wireless interface (Figure 1) (eg Column 4, lines 22-30). Kent teaches the central management module includes a control module for sending control instructions to the production controls through the data collection device (eg. Column 3, lines 32-36).

The Examiner acknowledges that "Kent fails to teach a data collection and control device operatively connected to individual oil/gas well production and pumping equipment for collecting production data from individual oil/gas well production and pumping equipment and for controlling the individual oil/gas well production and pumping equipment, wherein the data collection and control device includes processor for receiving the production and operating data of data collection oil/gas well production and pumping equipment and for providing instructions to the oil/gas well production and pumping equipment."

However, the Examiner alleges that Ayler teaches "a suitable main control computer for use in such supervisory control system".

Appl. No. 09/901,894
Amdt. dated May 11, 2004
Reply to Office Action of November 12, 2003

Discussion of Amendments and Arguments in Support of Amended Claims

As noted above, Applicant has amended the claims to clarify the structural and functional distinctiveness of the subject application over the prior art of record by clarifying that the remote device can store data prior to reporting that data to the central computer. As discussed below, it is clear that the cited references do not teach or suggest this structure or function.

Applicant respectfully disagrees with the Examiner's conclusions with respect to the teachings of the Ayler reference and the Examiner's conclusions with respect to obviousness in view of this reference.

Fundamentally, Applicant disagrees with the conclusions of the Examiner on the basis that the teachings of Kent and Ayler make no reference to a data collection and control device operatively connected to geographically separated oil/gas well production equipment that allows for the collection and storage of production data.

Given the absence of this key teaching within Ayler, Applicant submits that in accordance with US jurisprudence (as will be discussed in greater detail below) that:

- i) there would be no motivation to a worker of ordinary skill to combine the teachings of the references to solve the problem solved by the subject application; and
- ii) there is no expectation of success based on the teachings of the references to arrive at the claimed subject matter.

Furthermore, Applicant respectfully submits that the mere identification of elements of the claimed combination within a number of prior art references does not support a rejection on the basis of obviousness absent specific teaching within the references indicating that the problem solved by the claimed combination can be similarly solved by combining the teachings of the references.

As discussed in previous submissions, the Kent reference does not address the problem of collecting data from geographically separated oil/gas wells. The Examiner has acknowledged that Kent does not provide this teaching.

With respect to Kent, Applicant further clarifies other functional and structural distinctions between the Kent technology and the subject technology. With reference to Figure 1 of Kent, the Kent system includes a central "electronic production system" 10 that is connected to a number of data sources 22 that are remote to the central electronic production system. The central electronic production system 10 includes an input/output interface 18, a processor 12, memory 14 and stored programs 16. The electronic production system 10 and processor 12 is preferably a server operating a "NOVELL" token ring that can be connected to a number of terminals 20 (for providing operator input and display at the central location), to applications 24 and to an accounting/facility management system 26. (see column 3, lines 17-22 and column 3, lines 64- column 4, line 6). The data sources 22 includes electronic sensors 28 (for interfacing with equipment), a distribution control system 34 and drivers 36 (for facilitating data collection), a data collection processor 38 and a manual readings system 32 (for displaying data at the remote site)

Appl. No. 09/901,894
Amdt. dated May 11, 2004
Reply to Office Action of November 12, 2003

Kent operates to allow the central processing and control of remote systems in a chemical processing facility. Importantly, the majority of data processing and all memory functions are central. That is, Kent assumes that data, once collected is immediately transferred to the central processor. There may be an element of data processing at the remote location, but data is not stored at the remote location for subsequent delivery to the central location. In one embodiment of Kent, data is displayed at the remote location and is manually reported to the central processor but it is not stored.

It is also important to note that Kent does not teach that an operator at the remote location can provide input commands to the remote equipment.

With respect to the Ayler reference, the Ayler reference is directed to mining operations associated with the recovery of petroleum from oil sands through mining operations where tunnels and mineshafts are constructed to oil sand zones to facilitate extraction of petroleum from the oil sands. The Ayler reference is not associated with geographically distributed oil/gas wells having surface equipment for pumping petroleum products to the surface through this equipment. Moreover, Ayler is silent with respect to the problem of collecting data from such geographically distributed wells in order to address the problem and inefficiencies of collecting data from oil/gas wells that are separated by distance. Instead, the teachings of Ayler are restricted to data collection and control of equipment within a single mine to address safety concerns of petroleum recovery from an underground petroleum mine.

In this regard, it is important to note that Ayler does not teach a) that an operator at the remote location can provide input commands to the remote equipment b) that the remote equipment has the ability to store data at the remote location for subsequent delivery to the central processor or c) display data at the remote location.

In view of these differences between, it is clear that the problems associated with petroleum recovery from a mining operation involving oil sands is clearly distinct from the problems of petroleum recovery from a well drilled from the surface in that the infrastructure and skills required for these operations are very different.

Thus, while Ayler teaches that a central computer can be utilized to receive data from various equipment within a mine and control that equipment, Ayler does not teach or contemplate a system that enables the collection of data from geographically distributed oil/gas wells. Accordingly, the worker of ordinary skill would not be motivated based solely on the teaching of Ayler and Kent to address the problem of collecting data from geographically separated oil and gas wells.

Insomuch as the prior art does not address the problem that is the primary objective of the subject application and does not suggest or teach a key aspect of the technology, there can be no motivation to combine the references or a reasonable expectation of success.

Claimed Limitations Absent from the Prior Art

Moreover, in the Examiner's reasoned statements in rejecting the claims, the Examiner has failed to consider several limitations within the present claims that clearly indicate that the subject application addresses and solves a problem that has not been considered by the cited references.

Appl. No. 09/901,894
Amdt. dated May 11, 2004
Reply to Office Action of November 12, 2003

For example, claim 1 specifically requires a data collection and control device is adapted for and operatively connected to individual and geographically separated oil/gas well production and pumping equipment.

This limitation specifically requires that the data collection and control device be connected to at-surface oil/gas well pumping equipment which is neither taught nor suggested in Kent or Ayler.

With respect to objection to claim 5, which limitations have now been incorporated into claim 1, the Examiner states that Kent teaches "the data collection device includes data storage memory operatively connected to the central processor for storing production data prior to upload to the computer (eg. Column 5, lines 10-13).

Applicant submits that the Examiner has misunderstood this limitation. Amended claim 1 requires that the remote device has data storage capabilities that are used for storing data prior to uploading to the central computer. This is different than the teachings of Kent. In Kent, there is no teaching that data is stored remotely prior to reporting to the central computer. Similarly, there is no such teaching in Ayler.

With regards to claim 3, the Examiner alleges that Kent teaches a central processor operatively connected to an operator input system and a display system, the operator input system for receiving commands from an operator and the display system for displaying processed or unprocessed production data (eg. Col. 2 lines 15-28/Col 5 lines 16-25).

However, Kent discloses that the only point of operator input to the system is at the central location. While data may be displayed to an operator at a remote locate via the "Manual readings" and manually input into the system to be reported back to the central processor, the Kent system does not describe or disclose the ability of an operator at the remote location to alter the process parameters at that remote location. Rather, process parameters can only be adjusted or altered at the central location.

With reference to claim 3, claim 3 requires that "the data collection and control device further includes an operator input system for receiving commands from an operator". Accordingly, claim 3 requires that the remote system, that is, the equipment that is attached to an individual oil/gas well allows an operator to physically visit the oil/gas well to review the data at the well and also to provide input instructions at the well to the production equipment.

This limitation is not present in either Kent or Ayler. Kent teaches that an operator may view data at the remote location but not that the operator may input commands at the remote location. As a result, Kent does not teach this limitation. Furthermore, inasmuch as Ayler specifically indicates that a central computer is utilized to avoid operator contact with equipment, it is respectfully submitted that Ayler teaches away from the limitation of this claim.

The foregoing arguments outline the clear technical distinctions between each of the prior art systems and the subject system having consideration to the claims on file.

To further support the foregoing arguments, the Examiner is respectfully directed to *In re Inland Steel Co.* (60 USPQ2d 1396 (Fed Cir 2001)) in which the Federal Circuit clearly indicated that the prior art must provide a specific example of a critical parameter in the claims at issue and guidance tying that parameter to the key parameter of other prior art. In the

Appl. No. 09/901,894
Amdt. dated May 11, 2004
Reply to Office Action of November 12, 2003

subject case, there is no guidance from either prior art reference tying the use of data acquisition to geographically distributed oil/gas wells insomuch as an oil sands mining operation is not a oil/gas well within the meaning of the subject application.

Further still and as noted above, there must be a motivation to combine and an expectation of success. In *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.* 229 F.3d 1120, 56 USPQ2d 1456, (Fed. Cir. 2000), the court stated that a showing of obviousness requires a motivation or suggestion to combine or modify prior art references, coupled with a reasonable expectation of success. The motivation and the expectation of success must be found in the prior art references. A *prima facie* case of obviousness is a showing by the Examiner that the motivation to combine the references and a reasonable expectation of success are found in the prior art references themselves.

In the subject application, it is respectfully submitted that the prior art references do not provide such motivation as neither reference teaches the required data collection device for attachment to geographically separated oil/gas wells.

In summary, a patent claim is obvious only if every element of the claim is taught or suggested by the prior art and if the prior art itself contains the motivation to combine two or more references to meet the claims, and further if there is an expectation of success based on the prior art.

With respect to the pending claims, it is noted that neither Ayler nor Kent are directed to the problem of collecting data and otherwise controlling production and pumping equipment from geographically separated oil/gas wells. Accordingly, the cited references do not meet the standard for obviousness and it is submitted that the claims of record are patentably distinguished over the prior art of record.

Respectfully submitted,

Paul John EELUCH

By: 

Andrew R. Hicks
Reg. No. 39,468
Borden Ladner Gervais LLP
World Exchange Plaza
100 Queen Street, Suite 1100
Ottawa, ON K1P 1J9
CANADA
Tel: (613) 237-5160
Fax: (613) 787-3558

ARH/ldk